

Business and Environmental Protection: An Introduction¹

Jorge Rivera

**Department of Strategic Management and Public Policy
George Washington University
2125 G. Street, NW
Washington, DC 20052 USA²**

Magali Delmas

**Donald Bren School of Environmental Science & Management
Donald Bren Hall 3422
University of California
Santa Barbara, CA 93106 USA³**

This special issue of the *Human Ecology Review* presents research papers and opinion pieces that seek to improve the understanding of the interaction between business and the natural environment in different parts of the world. From all the research manuscripts submitted, we selected three papers for publication. We also present in the Forum section the opinion pieces of six recognized academic and industry leaders in the business and natural environmental field. Finally, we include a review of the book *Corporate Environmentalism and Public Policy* (Lyon and Maxwell 2004).

Development of the Field

In the 1990s, research on business and environmental protection focused, for the most part, on identifying a positive link between corporate environmental performance and profitability arguing that it can pay to be green (Starik and Marcus 2000; Porter and van der Linde 1995). This research stream positioned itself in opposition to the traditional view that improvements in environmental performance are associated with increased costs (Walley and Whitehead 1994; Palmer et al. 1995). The proponents of a win-win environmental management paradigm argued that green strategies could enhance firms' competitive advantage by attracting environmentally aware consumers (Hart 1995; Sharma and Vredenburg 1998; Shrivastava 1995a; Reinhardt 1998; Stead and Stead 1995). They posited that the development of pollution prevention technologies, as opposed to end-of-pipe technologies, could allow companies to increase the productivity and quality of their manufacturing process (Porter and van der Linde 1995; Corbett and Van Wassenhove 1993; Reinhardt 2000; Shrivastava 1995b; Nehrt 1996; Stead and Stead 1994; Majumdar and Marcus 2001; Rondinelli and Berry 2000) and help firms generate technological and organizational innovations that would give companies a competitive edge (Roome

1994; Shrivastava 1995b; Russo and Fouts 1997; Hart 1995). They also proposed that companies that have adopted a pro-environmental strategy could also impose a cost on their competitors by influencing regulators to adopt more stringent regulations (Vogel 1995; Christmann 2000) and reduce liability risks (Shrivastava 1995b; Reinhardt 2000).

However, empirical studies on the link between environmental and financial performance have shown conflicting evidence (Margolis and Walsh 2001; Russo and Fouts 1997; Konar and Cohen 2001, Hart and Ahuja 1995; Klassen and McLaughlin 1996; King and Lenox 2002; Rivera 2001; Khanna 2001). This may be explained in part by the difficulty of measuring environmental and financial performance (Margolis and Walsh 2001; Koehler and Cram 2001; Toffel and Marshall 2004; Johnston and Smith 2001) and by the empirical difficulty of assessing the causality between financial and environmental performance (Koehler and Cram 2001; King and Lenox 2001; Margolis and Walsh 2001). An additional challenge to researchers is that corporate environmental management efforts may be only indirectly related to profitability.

More recent streams of research have identified additional motivations for proactive corporate environmentalism such as institutional pressures and managers' motivations. Researchers within the institutional theory paradigm emphasize the role of social and cultural pressures imposed on organizations that influence the adoption of environmental organizational practices and structures beyond the profit-making rationale (Hoffman and Ventresca 2002; Hoffman 1999; Delmas and Toffel 2004; Rivera 2004). Empirical studies in the neo-institutional stream point out the key role played by government agencies, the media, industry associations, and environmental groups to pressure corporations to adopt proactive environmental management practices (Hoffman 1999; Delmas 2002; King and Lenox 2000; Rivera and deLeon 2004; Darnall 2003).

Scholars that rely on theories from organizational psychology have also provided important contributions to the research on business and environmental protection. This stream of research highlights how top managers' environmental beliefs, values, and attitudes — used to assess firms' competitive alternatives and their outcomes — play a critical role in determining corporate environmental management choices (Cordano and Frieze 2000; Egri and Herman 2000; Anderson and Bateman 2000; Egri 2000; Winn and Angel 2000). Pro-environmental attitudes and commitment by top managers also appear to positively affect the environmental behavior of middle and lower-level employees (Ramus and Steger 2000; Egri and Herman 2000).

Most recently, another research stream has concentrated on studying voluntary programs that promote the adoption of environmental management systems and encourage the creation of partnerships between profit and non-profit stakeholders. These include, for example, environmental management systems (EMS) such as the international environmental management standard ISO 14001, voluntary agreements between firms and regulatory agencies or NGOs, and industry self-regulation. This body of work has analyzed firms' motivations to voluntarily adopt such practices or to participate in these new relationships with stakeholders.

Empirical studies suggest that firms adopt ISO 14001 mostly in response to pressures from regulators, customers, and the civil society (Andrews et al. 2003; Coglianese and Nash 2001; Bansal and Bogner 2002; Christmann and Taylor 2001; Delmas 2002; Kollman and Prakash 2002), although some evidence shows that EMS could also improve firm efficiency and competitive advantage (Delmas 2001; Sroufe 2003).

Research on voluntary environmental programs has focused on understanding business motivations to adopt such initiatives (Delmas and Terlaak 2001; Marcus, Geffen, and Sexton 2002). It has been identified that these programs can provide tangible benefits to their participants, including enhanced reputation and price premiums (Arora and Gangopadhyay 1995; Rivera 2001), technical assistance (Wu and Babcock 1999; Khanna 2002; Delmas and Terlaak 2001) regulatory flexibility, and preemption of regulations (Segerson and Micelli 1998; Lyon and Maxwell 2004; Delmas and Terlaak 2001; Rivera 2002). However, the use of voluntary environmental programs as alternative environmental policy instruments introduces fundamental challenges to the ways in which corporations and non-profit organizations think about the institutions that society has developed to resolve environmental problems (Hoffman et al. 2002). Voluntary initiatives can be marked by high transaction costs and significantly affected by free-riding behavior (Marcus, Geffen, and Sexton 2002; Delmas and Mazurek 2004; Delmas and Keller 2004;

King and Lenox 2000; Rivera and deLeon 2004). These challenges vary across institutional contexts and may be serious enough to make these initiatives unattractive to policy makers and corporations (Delmas and Terlaak 2002).

Empirical evidence exploring the link between the adoption of voluntary programs and higher corporate environmental performance is still thin, pointing to the need for more work in this area. Until now, some seminal studies suggest either no correlation or a negative association between corporate environmental performance and participation in voluntary initiatives (Khanna and Damon 1999; Anton et al. 2004; King and Lenox 2000; Rivera and deLeon 2004). These negative results may be explained by the absence of mechanisms to reduce free-riding behavior by voluntary programs such as performance-based standards, third-party monitoring, and sanctions (King and Lenox 2000; Rivera and deLeon 2004; Reinhardt 1998).

Finally, it is important to highlight that despite the booming of emerging market economies in Asia and to a lesser degree in Latin America, very little research on corporate environmental management has studied the behavior of corporations in developing countries (Rivera 2002; Utting 2002; Christmann and Taylor 2001; Wehrmeyer and Mulugetta 1999). The literature remains almost exclusively focused on understanding the behavior of manufacturing firms in industrialized nations (Rivera 2002; Rivera 2004; Starik and Marcus 2000)

The conventional wisdom in emerging market economies is that given the economic limitations of businesses, governments, and consumers, the trade-off between environmental protection and competitiveness is more significant than in industrialized nations. For policy makers and business managers, this "conventional wisdom" generally implies that the enactment of mandatory environmental regulations should be postponed until a more advanced level of economic development has been achieved (Wheeler 1999). Not surprisingly, the majority of firms operating in these countries exhibit poor environmental management practices. We are very pleased that this special issue contributes towards filling this important gap in the corporate environmental management literature by including research articles and forum papers focused on voluntary initiative in both developing and developed countries.

Description of the Papers Included in this Special Issue

In their article, "How Do Public Disclosure Pollution Control Programs Work? Evidence from Indonesia," Blackman, Afsah, and Ratunanda shed light on the incentives for pollution reduction provided by one of the most innovative

public disclosure programs established in the developing world: the Program for Pollution Control, Evaluation and Rating (PROPER). Their findings suggest that in concert with stakeholder pressures, the information about environmental management opportunities provided by PROPER auditing process is a critical driver of pollution-reduction efforts among participants. These results contribute to the literature on public disclosure programs that views external institutional pressures as a key incentive for enhanced environmental performance. In developing countries where institutional pressures are weak and environmental expertise is scarce, voluntary disclosure programs can be more effective if they provide technical assistance to participants.

The article by Bruce Paton entitled "Two Pathways to Energy Efficiency: An Energy Star Case Study" evaluates the mechanisms within the Energy Star labeling program that are used to promote energy savings. It identifies two different mechanisms: a *converging* mechanism that pushes all firms within an industry to adopt a similar level of environmental performance and a *separating* mechanism that drives only some firms within the industry to differentiate their products based on their environmental performance. The paper suggests circumstances in which each type of mechanism may be more feasible and more desirable to create. In particular, it highlights that regulatory threats and government procurements may facilitate the success of converging mechanisms. Firms will have incentive to innovate and differentiate their product if they can protect their innovation from imitation.

In "A Comparative Institutional Approach to Environmental Regulation: The Case of Environmental Degradation Along the U.S.A.-Mexico Border," Bryan Husted develops a transaction-cost framework that considers the differences in countries' socio-economic contexts when selecting instruments of environmental regulation. Using the case of Mexico and the United States, the manuscript highlights the importance of avoiding a joint environmental policy that ignores the stark discrepancies in political support and administrative capacity enjoyed by environmental agencies on both sides of the border.

The Forum section of this special issue presents the opinion essays and commentaries from six path breakers in the business and environmental protection field. In his essay "The Sustainability Generation: Preparing Future Leaders," Garry Brewer discusses the challenges and opportunities created by environmental concerns to management education. He describes the need for education programs that bring together business management and environmental science skills. He elaborates on the many challenges that academic institutions face to prepare future leaders for the transition to a more sustainable future and describes pioneering efforts

within academic institutions in the U.S. Alfred Marcus' manuscript "Reviving Regulation," explores how altruism, profit-seeking, and regulations drive companies to become more environmentally sustainable. He argues that incentive-based regulations are key to deal comprehensively with the complex environmental problems confronting society.

In "Innovation, Global Change and New Capitalism: A Fuzzy Context for Business and the Environment," Nigel Roome argues that environmental sustainability is based on a strategic connection between innovation and corporate social responsibility accomplished in collaboration with a wide range of other actors. He proposes that as businesses confront interconnected environmental social, cultural, and economic issues, a new dialectic is established worldwide around competing models of the role of business in society. Focusing on the lifestyle of environmental researchers and professionals, Mark Starik's essay, "Holistic Environmental Leadership: Living Sustainably Beyond 9-to-5," provides an interesting guide for researchers and other professionals to engage in pro-environmental behavior.

Richard Welford's "Business and Environmental Protection: A View from Asia" highlights the acute environmental problems produced by the economic boom in China, India and other Asian countries. His essay stresses that to effectively solve these problems, policy makers need to rely on multiple environmental policy instruments (direct regulations, economic incentives, voluntary initiatives, and international standards) tailored to the unique socio-economic context of these countries. Finally, in "Certification: A Catalyst for Partnerships," Chris Wille illustrates in detail the innovative collaborative strategy implemented by Rain Forest Alliance to promote corporate environmental and social responsibility by auditing the behavior of timber and agricultural companies in both developed and developing countries.

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Endnotes

1. Both guest editors contributed equally to the special issue and to this introductory manuscript.
2. Author to whom correspondence should be directed:
E-mail: jriversa@gwu.edu
3. E-mail: delmas@bren.ucsb.edu

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